

## What is indexing

The prestige of any journal is considered by how many abstracting and indexing services cover that journal. It has been observed in last few years that authors have started searching for indexed journals to publish their articles. Probably this is happening because it has become a mandatory requirement for further promotions of teaching faculty in medical colleges and institutions. However, the big question is after all what is an “Index Journal”? Is a journal considered indexed if it is documented in a local database, regional database, or in any continental database? Based on available literature, we would like to clear in few forthcoming paragraphs what is the history of indexing, what is actual indexing, and what is nonindexing?

Citation index (indexing) is an ordered list of cited articles, each accompanied by a list of citing articles.<sup>1</sup> The citing article is identified as source and the cited article as reference. An abstracting and indexing service is a product, a publisher sells, or makes available. The journal contents are searchable using subject headings (keywords, author’s names, title, abstract, etc.,) in available database.<sup>2</sup> Being represented in the relevant online abstracting and indexing services is an essential factor for the success of a journal. Today search is done online, so it is imperative that a journal is represented in the relevant online search system. A citation index is a kind of bibliographic database, an index of citation between publications, allowing the user to easily establish which later documents, cite which earlier documents.<sup>3</sup>

A form of citation index was first found in the 12<sup>th</sup> century in Hebrew religious literature. Legal citation indexes were found in the 18<sup>th</sup> century and were made popular by citators such as Shepard’s citations (1873).<sup>3</sup> In 1960, the Eugene Garfields Institute for Scientific Information (ISI) introduced the first citation index for papers published in academic journals, first the science citation index (SCI) and later social science’s citation index and the arts and humanities citation index. The first automated citation indexing was done by “CiteSeer” in 1997. Other sources for such data include Google Scholar and Elsevier’s Scopus.<sup>3</sup>

Currently major citation indexing services are:

- SCI and SCI-expanded: Published by ISI a part of Thomson Reuters. As mentioned, SCI was originally produced by ISI and created by Eugene Garfield (1964).<sup>4,5</sup> The SCI’s database has two aims – first, to identify what each scientist has published and second, where and how often the papers by that scientist are cited. The SCI’s electronic version is

called “Web of Science.”<sup>4</sup> SCI-expanded indexes 8073 journals with citation references across 174 scientific disciplines in science edition<sup>6</sup>

- Scopus: Scopus (Elsevier) is a bibliographic database containing abstracts and citations for academic journal articles. It covers 21,000 titles from over 5000 publishers.<sup>7</sup> It is available online only.
- Indian citation index (ICI): An online citation data ICI<sup>8</sup> is a new web platform for measuring performance of Indian research periodically. This online bibliographic database was launched in 2009. ICI covers 800 plus journals which are published from India on science, technical, medical, and social sciences.<sup>8</sup>

In addition, “CiteSeer” and Google Scholar’ are freely available online.

### INDEX MEDICUS/MEDLARS/MEDLINE/ENTREZ AND PUBMED

John Show Billings, Head of the Library of the Surgeon General’s Office, United States Army, which later evolved as the United States National Library of Medicine (NLM), started index medicus (IM). IM was a comprehensive bibliographic index of scientific journal articles related to medical science, in print form, published between 1879 and 2004. NLM began computerizing indexing work in 1960 and called it MEDLARS, a bibliographic database, which later became MEDLINE. Thus, IM became the print presentation of MEDLINE databases content. Both print presentation (IM) and online database (MEDLINE) continued until 2004. In December 2004, the last issue of IM was published (volume 45). The stated reason for discontinuing printed publication was obvious because online resources supplanted it. The electronic presentations of MEDLINE’S contents also evolved, first with proprietary online services (accessed mostly at libraries) and later with CD-ROMS, then with Entrez and PubMed. PubMed is thus a free search engine which accesses the Medline data base. PubMed greatly accelerated the shift of online access to MEDLINE from something one did at the library to something one did anywhere.<sup>9</sup> An abridged version was published from 1970 to 1997 as the Abridged IM. The abridged edition lives on as a subset of the journals covered by PubMed (core clinical journals).

### EMBASE/EXPERTA MEDICA

Embase is database of Experta Medica (a print version),

and it is a biomedical pharmacological database formed of published literature. Embase is produced by Elsevier and contains over 28 million records of over 8400 files up to date, information about drugs, published in literature. Embase enables tracking and retrieval of drug information.<sup>10</sup>

### Index Copernicus

Index Copernicus (IC)<sup>11</sup> is an online database of user-contributed information, including scientist profiles as well as of scientific institutions, publications, and projects established in 1999 in Poland. The database is named after Nicolaus Copernicus and operated by IC International. However, ICS evaluation methodology is criticized.<sup>12</sup>

### PubMed Central

PubMed Central is a free digital repository that archives publically accessible full-text articles. About 1600 journals automatically deposit their articles in PubMed Central.

As per Editor insight series of Wolters Kluwer, there are four major online bibliographic sites – MEDLINE, PubMed Central, ISI, and Scopus.<sup>7</sup> Inclusion in MEDLINE confers a mark of quality upon a publication. PubMed Central gives greater access to open access contents and ISI provides an official impact factor. Inclusion in Scopus gives a clear view of journal metrics and provides H-Index and citation impact.<sup>7</sup>

There are certain nonabstracting and indexing services that many publishers claim to be indexed in Scribd Cabelles Directories, slide share Google Docs, open J-Gate, and New journal.

Medical Council of India considers following as indexing agencies: Scopus, PubMed, MEDLINE, Embase/Excerpta Medica, Index Medicus, and IC.<sup>12</sup>

To conclude, citation indexing services include SCI and SCI expanded. Rest are search engines or bibliographic online data base. Major such bibliographic sites are MEDLINE (most prestigious and its data are searchable by PubMed), ISI, Scopus and Indian citation index (emerging).

### Ish Kumar Dhammi, Rehan UI Haq

*Department of Orthopaedics, UCMS and Guru Teg Bahadur Hospital, New Delhi, India*

**Address for correspondence:** Dr. Ish Kumar Dhammi, Department of Orthopaedics, UCMS and Guru Teg Bahadur Hospital, New Delhi - 110 095, India.  
E-mail: drikdhammi@gmail.com

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